

PATENT COOPERATION TREATY
PCT
INTERNATIONAL PRELIMINARY EXAMINATION REPORT

23 JAN 2005

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 109248:JHK:SMV:ad	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416).
International Application No. PCT/AU2003/000953	International Filing Date (day/month/year) 29 July 2003	Priority Date (day/month/year) 29 July 2002
International Patent Classification (IPC) or national classification and IPC Int. Cl. ⁷ F04B 43/10, 43/113		
Applicant COMBINED RESOURCE ENGINEERING PTY LTD et al		

This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 3 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 10 sheet(s).

3. This report contains indications relating to the following items:

I	<input checked="" type="checkbox"/> Basis of the report
II	<input type="checkbox"/> Priority
III	<input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
IV	<input type="checkbox"/> Lack of unity of invention
V	<input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
VI	<input type="checkbox"/> Certain documents cited
VII	<input type="checkbox"/> Certain defects in the international application
VIII	<input type="checkbox"/> Certain observations on the international application

Date of submission of the demand 23 February 2004	Date of completion of the report 17 November 2004
Name and mailing address of the IPEA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaustalia.gov.au Facsimile No. (02) 6285 3929	Authorized Officer R. SUBBARAYAN Telephone No. (02) 6283 2377

I. Basis of the report

1. With regard to the elements of the international application:*
- ☐ the international application as originally filed.
- ☒ the description, pages 1,4-6,8-18, as originally filed,
pages , filed with the demand,
pages 2,3,7, received on 22 July 2004 with the letter of 22 July 2004
- ☒ the claims, pages , as originally filed,
pages , as amended (together with any statement) under Article 19,
pages , filed with the demand,
pages 19-25, received on 22 July 2004 with the letter of 22 July 2004
- ☒ the drawings, pages 1/15-15/15 , as originally filed,
pages , filed with the demand,
pages , received on with the letter of
- ☐ the sequence listing part of the description:
pages , as originally filed
pages , filed with the demand
pages , received on with the letter of
2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.
These elements were available or furnished to this Authority in the following language which is:
- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).
3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:
- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished
4. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/fig.
5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims 1-46	YES
	Claims	NO
Inventive step (IS)	Claims 1-32,34,35,37,42-44	YES
	Claims 33,36,38-41,45,46	NO
Industrial applicability (IA)	Claims 1-46	YES
	Claims	NO

2. Citations and explanations (Rule 70.7)

- D1) GB 2195149
D2) WO 1982/001738
D3) US 4543044
D4) US 5114319
D5) US 6345962

INVENTIVE STEP

Claim 33: Citations D1 & D2 disclose all of the features of this claim except that of the one end of the tube structure being closed. However this feature is disclosed by citation D5 and it would be obvious to a skilled addressee to combine this document with either one of D1 or D2 and thereby arrive at the invention of claim 33. This claim therefore lacks an inventive step.

Claims 36,38-40,45,46: Citations D3 & D4 disclose a pumping system having at least two pumps, delivery means for delivering pumped fluid to each pumping chamber in timed sequence and mean for supplying actuating fluid to each actuating region in timed sequence to cause the pumping chamber to undergo a discharge stroke. Although these documents do not disclose the pumping chambers as including a tube structure, such pumping structures are common general knowledge in the art (as evidenced by citations D1, D2, D5). It would be obvious to a skilled addressee to combine this common general knowledge with the teachings of D3 or D4 and thereby arrive at the claimed invention.

Claim 41: Citation D5 teaches a fluid operated pump in which the tube structure is closed at one end and the other end communicates with a port through which pumped fluid can enter into and discharge from the pumping chamber. However it does not explicitly disclose that the closed end is in an elevated position in relation to the other end. However it is considered that it would be obvious to a skilled addressee that this configuration can be used with the teachings of D6 and would thereby arrive at the claimed invention in a non-inventive manner. This claim therefore lack an inventive step.